



MUSLIM ASSOCIATION  
COLLEGE OF ARTS & SCIENCE  
Panavoor, Thiruvananthapuram

# Digital Marketing



SIXTH SEMESTER B.Sc COMPUTER SCIENCE

STUDY MATERIAL UNDER THE SYLLABUS OF UNIVERSITY OF KERALA

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# MUSLIM ASSOCIATION COLLEGE OF ARTS AND SCIENCE

Panavoor, Thiruvananthapuram, Kerala

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## Department of Computer Science

### CS1661.3 : DIGITAL MARKETING

Name : .....

Candidate Code: .....

## **CS1661.3 : DIGITAL MARKETING**

### **SYLLABUS**

**Module I:** Introduction: Nature, Scope and Importance of Digital Marketing; Evolution of Digital Marketing; Core Concepts-Inbound Marketing, Content Marketing, Email Marketing, Influential Marketing; Holistic Digital Marketing Concept, 10Ps of digital marketing; Digital Marketing Environment: Macro and Micro Environment.

**Module II:** E-banking: approaches, devices, services, benefits, drawbacks, Electronic payment systems-credit cards, debit cards, smart cards, credit accounts, cyber security, encryption, secret key cryptography, public key cryptography, digital signatures, firewalls

**Module III:** Digital Marketing: Search Engine Optimization (SEO), Social Media, Content Marketing; Email Marketing, Mobile Marketing. Challenges for Digital Marketing: Increased Security Risk, Cluttered Market, Less Focus on Keywords, More Ad Blockers, Increased Ad Costs.

**Module IV:** Digital Marketing: Pay per Click-Search Engine Advertising, Advantages, Factors, Conversion Rate Optimization (CRO); Digital Marketing- Web Analytic. Social Media Marketing: Face book, Pinterest, Twitter, LinkedIn, YouTube, Google Adwords, Google Analytics; Issues andFuture enhancement of Digital Marketing.

## **MODULE I**

Introduction: Nature, Scope and Importance of Digital Marketing; Evolution of Digital Marketing; Core Concepts-Inbound Marketing, Content Marketing, Email Marketing, Influential Marketing; Holistic Digital Marketing Concept, 10Ps of digital marketing; Digital Marketing Environment: Macro and Micro Environment.

## What is Digital Marketing?

- Digital Marketing refers to the marketing of products and services of a company or business through digital channels such as search engines, websites, email, social media, mobile apps, etc.
- It involves the use of electronic devices and the internet
- Digital marketing mainly comprises Search Engine Optimization (SEO), Social Media Optimization (SMO), and Search Engine Marketing (SEM).
- We can say that it can be divided into three parts SEO, SMO, and SEM. However, Email Marketing and Affiliate Marketing have also become important components of digital marketing over the past few years.

## Components of Digital Marketing

Digital Marketing have the following key components

1. SEO
2. SEM
3. Affiliate Marketing
4. SMO
5. Email Marketing



## **1.Search Engine Optimization (SEO)**

- Search Engine Optimization (SEO) is a practice aimed at improving a website's visibility and ranking in search engine results.
- It involves various strategies and techniques to increase the quantity and quality of website traffic by enhancing its visibility to users of a search engine, such as Google, Bing, or Yahoo.
- SEO is essential for businesses and websites looking to attract organic (non-paid) traffic from search engines.
- By optimizing for search engines, websites increase their chances of ranking higher in search results, leading to more visibility, traffic, and potential customers or users.

## **2.Search Engine Marketing (SEM)**

- SEM is the process of increasing a website's visibility in search engine results pages by using paid adverts. It consists of SEO, contextual marketing, AdSense, social networking, pay-per-click (PPC), AdWords and other techniques.
- Search Engine Marketing (SEM) is a form of digital marketing that involves promoting websites by increasing their visibility in search engine results pages (SERPs) through paid advertising.
- SEM primarily encompasses two major components: Search Engine Optimization (SEO) and Pay-Per-Click (PPC) advertising.

## **3.Affiliate Marketing**

- Affiliate Marketing is an online advertising model that provides an efficient way to promote products and services to users as well as companies without creating our own products and services.
- Affiliate marketer's main role is to join affiliate programs, find efficient and reputable products to promote, and then share those products with the target audience to earn the profit.

## **4.Social Media Optimization**

- SMO is a process or a set of activities that helps you increase website traffic through social media sites such as Facebook, Twitter, LinkedIn, and Google+.
- A social media site is an online platform that allows us to interact with people and build social networks across the world.
- You can perform various tasks or activities through social media, e.g. you can participate in discussions, share your thoughts, create your page to promote your business etc.

## **5. Email Marketing**

- Email advertising is a powerful marketing channel, a type of direct marketing and utilizes email to advance your business's product and services.
- It will help keep your customers updated about new products or deals by incorporating them into your marketing automation activities.
- In marketing strategy, it can also play an essential role with lead age, building connections, brand awareness, or engaging clients through shopping through various marketing emails.
- Email marketing means using email in order to promote products and services while building relationships with expected customers or clients.
- Basically, it is a standard mail that's sent electronically rather than via the postal service.

## **Nature of Digital Marketing**

In simple terminology, the word Digital Marketing is termed to be the online marketing that can be used to do the effective promotion for the organization, any brands, etc.

it also indulges in the selling various products and services over the world wide network that's is none other than the Internet.

Digital Marketing is moreover concerned with the process of leveraging the multiple channels that are involved in online marketing, which includes the following:

- Various Social Media Networks like Instagram, Facebook and many more.
- Electronic Mail (E-mail).
- Search Engines.
- Various Websites.
- Different mobiles apps.
- And many more.

## **Scope and Importance of Digital Marketing**

### **Scope of Digital Marketing**

According to a survey by Forbes magazine, 82% of consumers shop or conduct research online. Companies have introduced visibility through digital platforms to close the gap between customers and brands. India is the second-largest country in terms of population and active internet users, with a population of almost 2 billion. This makes it one of the biggest markets, and the market's soaring demand reflects the vast growth potential of the nation.

- The use of digital marketing in the digital era not only allows for brands to market their products and services but also offers online customer support through 24x7 services to make the customer feel supported and valued.
- The use of social media in digital marketing interaction allows brands to receive both positive and negative feedback from their customers as well as determine what media platforms work well for them.



- Digital marketing provides increased advantage for brands and businesses. It is now common for consumers to post feedback online through social media sources, blogs, and websites about their experience with a product or brand.

### **Importance of Digital Marketing**

#### **1. Global Reach:**

Digital marketing enables businesses to reach a global audience. With the internet connecting people worldwide, businesses can market their products or services beyond geographical boundaries.

#### **2. Cost-Effectiveness:**

Compared to traditional marketing channels, digital marketing often offers more cost-effective solutions. Online advertising, social media marketing, and email campaigns can be tailored to fit various budget sizes.

#### **3. Measurable Results:**

Digital marketing allows for precise measurement and analysis of campaign performance. Metrics such as website traffic, conversion rates, and customer engagement can be tracked in real-time, providing valuable insights for optimization.

#### **4. Targeted Advertising:**

Digital marketing enables businesses to target specific demographics, interests, and behaviors. This targeted approach ensures that marketing messages reach the most relevant audience, increasing the chances of conversion.

#### **5. Customer Interaction and Engagement:**

Social media and other digital channels facilitate direct interaction with customers. Businesses can engage in real-time conversations, gather feedback, and build relationships with their audience, fostering brand loyalty.

#### **6. Competitive Advantage:**

Digital marketing provides smaller businesses with the opportunity to compete with larger counterparts on a more level playing field. Effective digital strategies can help businesses stand out and gain a competitive edge.

**7. Personalization:**

With data-driven insights, businesses can personalize marketing messages for individual consumers.

**8. Brand Awareness and Visibility:**

Digital marketing contributes significantly to brand awareness. Through social media, content marketing, and online advertising, businesses can increase their visibility and make their brand more recognizable to their target audience.

**9. Mobile Accessibility:**

The increasing use of smartphones makes digital marketing accessible to a large audience. Mobile optimization and mobile-specific marketing strategies cater to the growing number of users who access the internet through their mobile devices.

**10. Time Efficiency:**

Digital marketing allows for rapid deployment of campaigns and promotions. Quick implementation and immediate results make it a time-efficient approach compared to traditional marketing methods.

## **Evolution of Digital Marketing**

The evolution of digital marketing has been a dynamic journey, closely intertwined with technological advancements, changing consumer behaviors, and the evolving digital landscape. Here's a timeline highlighting key milestones and shifts in the evolution of digital marketing:

**1. 1990s: Emergence of the Internet:**

The World Wide Web became publicly accessible in the early 1990s, laying the foundation for the digital era. Initial digital marketing efforts focused on basic websites and email campaigns.

**2. Early 2000s: Search Engine Optimization (SEO):**

As the internet gained popularity, businesses began optimizing their websites for search engines. SEO became a key strategy to improve website visibility and rankings on search engine results pages (SERPs).

**3. Mid-2000s: Rise of Social Media:**

Social media platforms like Facebook, LinkedIn, and Twitter emerged, creating new opportunities for businesses to connect with audiences. Social media marketing became a crucial aspect of digital strategies.

**4. Mid-2000s: Pay-Per-Click Advertising (PPC):**

Search engines introduced PPC advertising models, allowing businesses to bid on keywords and pay only for clicks. Google AdWords (now Google Ads) played a significant role in popularizing PPC.

**5. Late 2000s: Content Marketing:**

The importance of content marketing grew, with businesses focusing on creating valuable, relevant content to engage audiences. Blogging, articles, and multimedia content became integral to digital strategies.

**6. Late 2000s: Mobile Optimization:**

The increasing use of smartphones led to a focus on mobile optimization. Responsive web design and mobile apps became essential for reaching users on various devices.

**7. 2010s: Big Data and Analytics:**

The proliferation of data led to the rise of big data analytics. Marketers started leveraging data to gain insights into consumer behavior, preferences, and campaign performance, leading to more targeted strategies.

**8. 2010s: Video Marketing and Visual Content:**

Video content gained prominence with the popularity of platforms like YouTube. Short-form videos on platforms like Vine (later succeeded by TikTok) and visual content on platforms like Instagram became popular.

**9. 2010s: Rise of Influencer Marketing:**

Brands began collaborating with influencers on social media platforms to reach niche audiences. Influencer marketing became a powerful way to leverage the credibility and reach of individuals with large online followings.

**10. 2010s: Marketing Automation:**

Automation tools and platforms gained traction, enabling marketers to streamline repetitive tasks, nurture leads, and deliver personalized content based on user behavior.

**11. 2010s: Social Commerce:**

Social media platforms evolved into shopping destinations, introducing features like "Buy" buttons and shoppable posts. Social commerce became a new avenue for online sales.

**12. 2020s: AI and Chatbots:**

Artificial Intelligence (AI) and machine learning became integral to digital marketing, powering chatbots for instant customer interaction, personalized recommendations, and predictive analytics.

**13. 2020s: Privacy Concerns and Regulation:**

Growing concerns about data privacy led to increased regulations, such as GDPR (General Data Protection Regulation) and the emphasis on user consent in digital marketing practices.

**14. 2020s: Integration of AR and VR:**

Augmented Reality (AR) and Virtual Reality (VR) technologies started making their way into digital marketing, providing immersive and interactive experiences for users.

**15. 2020s: Voice Search Optimization:**

The increasing use of voice-activated devices led to a focus on optimizing content for voice search, impacting SEO strategies.

## Inbound Marketing

- Inbound marketing is a digital marketing method that helps you attract customers to your business by creating useful content and experiences that resonate with audiences.
- It prioritizes content creation and information sharing as a way to reach customers, rather than relying solely on ads.
- Inbound marketing addresses the needs of customers.
- Different marketing categories, such as content marketing, email marketing, social media marketing, and digital marketing, could all see potential benefits from integrating inbound marketing strategies.
- The methodology of inbound marketing is less about sales and more about content creation and providing customers with robust information about your brand and products.
- Inbound marketing targets customers through online platforms such as blogs, social media and search engines.

Examples of inbound marketing content and tactics include the following:

- Blog posts.
- Photos.
- Videos.
- Podcasts.
- Presentations.
- E-books.
- Whitepapers.
- E-newsletters.
- E-zines.
- Webinars.
- SEO.
- Social media marketing.

## Benefits of inbound marketing

Inbound marketing offers organization the following benefits:

- **Lower advertising costs.** Inbound marketing can save organizations money because they depend less on interruptive outbound marketing techniques -- such as cold-calling, cold-emailing, direct mail, or TV and radio advertisements -- to procure leads. Most platforms that help share content, such as Facebook, Twitter, YouTube and various blogging websites, are free to use and sign up for, which further offsets costs.
- **Small businesses can compete.** Inbound marketing is cheaper to execute, so smaller businesses can compete with bigger companies for leads on the internet. SEO strategies can replace some advertising spending because it makes content more visible on search engines and other customer-facing channels.
- **Word-of-mouth advertising.** Inbound marketing content is promoted by companies on social media, so it often spreads through word-of-mouth and has a long-term effect on prospects by reaching them on multiple social channels. Older pieces of content can attract more leads over time as the social media reach increases, giving an organization fresh leads without spending time or effort on creating a new piece of content.
- **Customer feedback.** Feedback is easily obtained through leads leaving comments or initiating conversations on social media. Organizations can use this feedback to improve their products, services and content marketing strategies.

## Content Marketing

- Content marketing is a marketing strategy involving the creation and sharing of relevant materials, such as articles, videos, social media posts, and emails, to attract and engage audiences, establish expertise, promote brand awareness, and drive sales
- The primary goal of content marketing is to build brand awareness, establish authority, nurture relationships with the audience, and ultimately drive profitable customer action.
- Rather than explicitly promoting a product or service, content marketing focuses on providing valuable information and resources that address the needs and interests of the target audience.
- Content marketing is a long-term strategy that aims to build a strong relationship with the audience and influence their purchasing decisions through valuable and relevant content.
- It plays a crucial role in the overall marketing mix, complementing other strategies and contributing to the success of businesses across various industries.
- A content marketing campaign builds relationships with your audience, whether they're ready to buy or not.

### Objectives of Content Marketing

- **Attracting top-of-the-funnel customers:** Content can introduce customers to your brand
- **Building trust:** Sharing helpful information for free establishes your credibility
- **Contributing to an SEO strategy:** Search engines prefer (and rank) websites with useful content
- **Improving the customer experience:** Content helps customers see how others use your product, understand what's going wrong, and more .Content comes in many shapes and sizes. It can be written, visual, or a mix of both.

Here are some examples of popular types of content:

- Blog posts
- Email
- Infographics

- Videos
- Email newsletters
- Ebooks and white papers

## Email Marketing

- Promoting a business by sending emails and newsletters is what we call email marketing.
- Today's marketers need to do more with less. They need to connect with their audience in a highly personalized way, while staying on budget.
- Marketers who are good at email marketing can connect with their customers in a highly targeted way. They will be successful in delivering ROI and revenue back to the business.
- Email is a tool that nearly everyone uses today, and it continues to grow and be more prevalent in the lives of people around the world.
- There are three times more email accounts than there are Facebook & Twitter accounts combined.

### Types of Emails:

1. **Promotional Emails:** Highlighting special offers, discounts, or promotions to drive sales.
2. **Transactional Emails:** Providing information related to a transaction, such as order confirmations or shipping notifications.
3. **Educational Emails:** Sharing valuable content, tips, or educational materials to engage and inform subscribers.
4. **Newsletters:** Periodic updates containing a mix of promotional content, industry news, and other relevant information.

### Advantages of Email Marketing

Email marketing offers several advantages for businesses and marketers. Here are some key benefits:

#### 1. Cost-Effective:

Email marketing is a cost-effective method compared to traditional marketing channels.

There are minimal costs associated with creating and sending emails, making it an efficient option for businesses of all sizes.



**2. Direct and Targeted Communication:**

Businesses can communicate directly with their audience through email. With the ability to segment email lists and personalize messages, marketers can send targeted content to specific groups, increasing relevance and engagement.

**3. Measurable Results:**

Email marketing platforms provide robust analytics and tracking features. Marketers can measure key metrics such as open rates, click-through rates, and conversion rates, allowing for data-driven decision-making and continuous improvement.

**4. Automation and Efficiency:**

Automation features in email marketing platforms enable the creation of automated email sequences based on user actions or specific triggers. This saves time and allows businesses to engage with their audience at various stages of the customer journey.

**5. Global Reach:**

Email allows businesses to reach a global audience instantly. With the ability to send messages across different time zones, businesses can connect with subscribers around the world, promoting products or services to a diverse audience.

**6. Easy to Share:**

Subscribers can easily share email content with their network, helping businesses expand their reach organically. This word-of-mouth promotion can contribute to increased brand visibility.

## **Influencer Marketing**

- Influencer marketing is a form of marketing that involves partnering with individuals who have a significant and engaged following on social media platforms.
- These individuals, known as influencers, have the ability to influence the purchasing decisions of their followers due to their credibility, expertise, or popularity in a specific niche.
- Companies may ask a person with a large following to publish social media content that promotes their products or services.

- People often follow individuals they trust on social media, so if they see someone they follow advertising your business, there's an inherent trust factor you can lean on to boost your conversion rate.
- An integral part of any influencer strategy is figuring out which influencers might suit your company.
- For example, if you sell facial moisturizers, you may want to work with an influencer with a strong track record of success promoting skincare products.

Here are a few other advantages to consider:

- **Establish credibility and trust.**

One of the reasons many businesses have a hard time selling their products and services is that they can't establish credibility. Your business must appear credible if you want people to buy from you. By partnering with an influencer that followers trust, you can quickly boost your credibility.

- **Cost-effective.**

Another major benefit of using influencer marketing is that it's cost-effective. If you decide to use this tactic, you may generate a significant return on your investment as long as you partner with the right people.

- **Attract quality leads.**

By using influencer campaigns, you can reach people who are likely interested in the products and services you offer. As a result, you may have an easier time increasing your conversion rate.

- **Boost brand awareness.** When you partner with influencers, you immediately get your products and services in front of hundreds of thousands of people. There are even some influencers who have millions of followers.

## Holistic Digital Marketing Strategy

- A holistic digital marketing strategy is one that takes into account all of the different channels that your target audience is using.
- This includes things like search engine optimization (SEO), pay-per-click (PPC) advertising, social media marketing, content marketing, and email marketing.
- By using a holistic approach, you can ensure that your marketing messages are seen by the right people, at the right time, and in the right place.

**Here are some of the benefits of using a holistic digital marketing strategy:**

1. **Increased reach:** By using a variety of channels, you can reach a wider audience than you would by using just one or two channels.
2. **Improved targeting:** By understanding your target audience, you can tailor your marketing messages to their specific interests and needs.
3. **Increased ROI:** By tracking your results, you can see which channels are most effective and adjust your strategy accordingly.
4. **Improved brand awareness:** By creating consistent and high-quality content, you can build a strong brand reputation online.
5. **Increased customer loyalty:** By providing excellent customer service, you can encourage customers to come back for more.

## 10Ps of Digital Marketing

Traditionally, marketing was often associated with the "4Ps": Product, Price, Place, and Promotion.

In the context of digital marketing and the evolving business landscape, some experts have extended these principles to incorporate additional elements.

While the specific Ps may vary, here's an adaptation of the traditional 4Ps into the 10Ps of digital marketing:

### 1. **Product:**

This remains a fundamental element, emphasizing the importance of having a valuable and well-defined product or service. In the digital age, it also includes considerations like product features, user experience, and how digital channels can enhance the product offering.

### 2. **Price:**

Digital marketing allows for dynamic pricing strategies, personalized pricing, and online payment options. Considerations also include how pricing is communicated through digital channels.

### 3. **Place:**

In the digital context, "Place" refers to the distribution channels through which products or services are delivered. This includes e-commerce platforms, websites, mobile apps, and other online channels.

### 4. **Promotion:**

Traditional promotion still plays a vital role, but in the digital space, it extends to a broader spectrum, encompassing content marketing, social media promotion, influencer marketing, search engine marketing, and various online advertising methods.

### 5. **People:**

People represent both the internal team and the target audience. In digital marketing, a focus on the people aspect includes understanding the online behavior of the target audience, creating user-centric content, and providing a positive user experience.

**6. Processes:**

Digital marketing involves a range of processes, from content creation and distribution to customer relationship management and data analytics. Efficient and streamlined processes contribute to the effectiveness of digital marketing strategies.

**7. Physical Evidence:**

While originally part of the extended marketing mix, physical evidence is relevant in the digital space as well. It includes the tangible elements that support the brand, such as website design, packaging, and other visual cues in the online environment.

**8. Performance:**

This reflects the importance of measuring and analyzing key performance indicators (KPIs) in digital marketing campaigns. It includes metrics like website traffic, conversion rates, social media engagement, and return on investment (ROI).

**9. Personalization:**

Personalization has become a critical aspect of digital marketing. It involves tailoring content, recommendations, and communication to individual user preferences and behaviors.

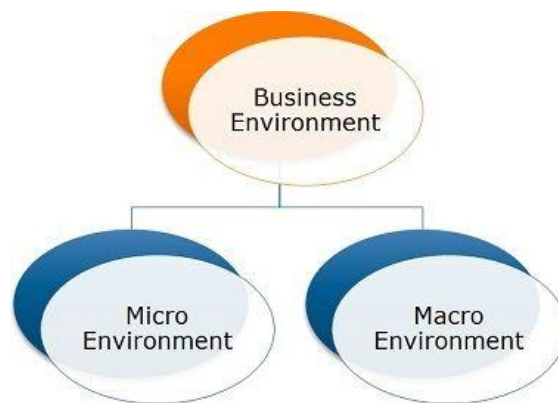
**10. Privacy:**

With increasing concerns about data privacy, the concept of privacy is crucial in digital marketing. Businesses need to prioritize secure data handling, comply with regulations, and respect user privacy preferences.

## Digital Marketing Environment

- The digital marketing environment refers to the dynamic and ever-changing landscape in which digital marketing activities take place.
- It encompasses various factors, elements, and influences that shape how businesses engage with their audience, promote products or services, and achieve marketing objectives in the online realm.
- Understanding the digital marketing environment is crucial for developing effective strategies and staying relevant in the fast-paced digital landscape.

The two major elements of the digital marketing environment are micro-environment and macro-environment.



### 1. Micro-Environment

- The first component of the digital marketing environment is the micro-environment.
- The micro-environment is referred to as the “operating environment” and focuses on customers’ needs and wants.
- The customers, competitors, suppliers, and intermediaries’ needs and wants are essential to focus on due to their role in shaping the immediate trading environment.
- The behaviors of these groups of people shape the online marketplace.
- Understanding their needs and wants allows marketers to create and adapt their digital strategies to meet their needs and wants.



## 2.Macro-Environment

- Next, we have the macro-environment. The macro-environment is often referred to as “the remote environment” and is made up of external forces that can influence digital marketing and successfully affect success.
- These forces include political interventions, economic conditions, social change, technological developments & innovations, legal legislation, and environmental forces that are beyond the control of the organization itself.
- Another significant influence on opinions is the ever-evolving social media networks, which enhance digital channels by allowing these forces to communicate information that shapes the opinions of many globally.



\*\*\*\*\*END OF MODULE 1\*\*\*\*\*

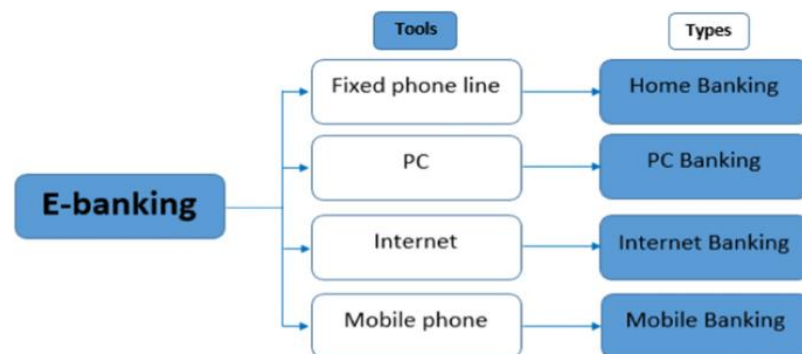
## **MODULE II**

E-banking: approaches, devices, services, benefits, drawbacks, Electronic payment systems- credit cards, debit cards, smart cards, credit accounts, cyber security, encryption, secret key cryptography, public key cryptography, digital signatures, firewalls



## E-Banking

- E-banking is a system that allows users to access their bank accounts and perform financial operations online.
- It is also known as internet banking, online banking, or virtual banking.
- e-banking is the result of the internet and e-commerce.
- e-Banking is a service provided by the banks, in which a customer is allowed to conduct transactions using the internet.
- It is an electronic payment system that allows users(customers) of any financial institutions(banks, insurance companies, brokerage firms, etc.) to perform financial transactions using the internet.
- Usually, this service is offered by banks which gives their customers the facilities of online banking through which they can have access to their accounts within a few seconds and click.
- Online Banking includes the facilities such as Account Statements, Fund transfers, Account Opening, Financial Product Information, etc.
- There is no need for any human operator to respond to the customers. The banks have a centralized database and everything is automated.
- It lowers the banking cost and strengthens the banking relationship by adding value to the service.
- It provides banking services via the internet and it is end-to-end encrypted, which means it is completely safe and secure.
- It also promotes paperless/cashless financial transactions.



## Approaches to E-Banking services

- Electronic banking has many names like web-based banking, e-banking, virtual banking, or web banking, and online banking.
- It is just the utilisation of telecommunications networks and electronic networks for conveying different financial services and products.
- Banks offer different kinds of services through electronic financial stages. These are of three sorts:

### Type 1:

This is the essential degree of administrations or services that banks offer through their sites. Through this assistance, the bank offers data, information regarding its services and products to clients. Further, a few banks might respond to an inquiry through email as well.

### Type 2:

In this category, banks permit their clients to submit directions or applications for various administrations, check their record balance, and so on. Be that as it may, banks don't allow their clients to do any fund-based exchanges with respect to their records or accounts.

### Type 3:

In the third category, banks permit their clients to work or operate their records or accounts for bill payments, purchase and redeem securities and fund transfers, and so on.

## Devices used in E-Banking services

Electronic banking (e-banking) involves the use of electronic devices and technologies to conduct various banking activities. The specific devices used in e-banking can vary, but commonly include:

- **Personal Computers (PCs):** Customers can access online banking services through their personal computers, using web browsers to log in to secure banking websites.
- **Laptops:** Similar to personal computers, laptops provide a portable option for accessing e-banking services.
- **Smart phones:** Mobile banking applications are widely used for conducting banking transactions on smartphones. These apps allow customers to check account balances, transfer funds, pay bills, and perform other banking activities on the go.

- **Tablets:** Tablets provide a larger screen compared to smartphones, offering a more comfortable and user-friendly interface for mobile banking.
- **ATMs (Automated Teller Machines):** ATMs allow customers to perform basic banking transactions such as withdrawing cash, checking balances, and depositing money. While not strictly e-banking, ATMs are an integral part of the electronic banking ecosystem.
- **Point-of-Sale (POS) Terminals:** Used for retail transactions, POS terminals enable customers to make payments directly from their bank accounts using debit or credit cards.
- **Biometric Devices:** Some e-banking systems incorporate biometric authentication methods, such as fingerprint or facial recognition, for enhanced security.
- **Smart Cards:** Cards with integrated circuits (smart cards) are used for various purposes, including debit and credit cards for online transactions and ATM access.
- **Token Devices:** Some banks provide customers with physical or virtual tokens that generate one-time passwords for additional security during online transactions.
- **Electronic Funds Transfer (EFT) Devices:** Devices like card readers or USB dongles may be used for secure authentication and authorization of online transactions.
- **Interactive Voice Response (IVR) Systems:** Customers can use their phones to interact with automated systems for certain banking transactions through voice prompts.
- **Wearable Devices:** With the rise of technology, some banks have developed apps for smart watches and other wearable devices, allowing customers to access basic banking services.

### **E-Banking Services**

E-banking services can be approached in various ways to cater to the diverse needs of customers and ensure a seamless and secure online banking experience. Here are some common approaches to E-banking services:

1. **Internet Banking (Online Banking):** This is the most traditional form of e-banking, where customers access banking services through a web browser on their personal computers or laptops. Internet banking allows customers to perform a wide range of transactions, including checking account balances, transferring funds, paying bills, and managing investments.

2. **Mobile Banking:** With the widespread use of smartphones, mobile banking has become increasingly popular. Banks provide dedicated mobile apps that allow customers to access banking services on the go. Mobile banking apps often offer features like mobile check deposit, transaction alerts, and biometric authentication.
3. **ATM Services:** While automated teller machines (ATMs) are not exclusively electronic banking, they are a critical component. ATMs enable customers to perform various transactions, such as cash withdrawals, deposits, and balance inquiries, outside of traditional branch hours.
4. **Phone Banking:** Interactive Voice Response (IVR) systems and customer service hotlines enable customers to perform banking transactions using their phones. This may include checking account balances, transferring funds, and reporting lost or stolen cards.
5. **Social Media Banking:** Some banks use social media platforms to provide customer support, share financial tips, and even enable basic transactions. Customers can communicate with the bank through social media channels for assistance and information.
6. **Biometric Authentication:** To enhance security, e-banking services may employ biometric authentication methods such as fingerprint scanning, facial recognition, or voice recognition to verify customer identity.
7. **Cryptocurrency and Blockchain Services:** Some financial institutions are exploring or implementing services related to cryptocurrencies and blockchain technology, such as offering digital wallets or facilitating blockchain-based transactions.
8. **E-Wallets and Contactless Payments:** E-banking services may include the use of electronic wallets (e-wallets) and contactless payment options for online and in-store transactions. These methods can enhance convenience and speed of transactions.

## Benefits of E Banking

### 1. **Convenience:**

E-banking makes it very easy for users to do different financial activities. People don't need to go to the bank to access their bank accounts; they can do it at any time while sitting in their homes.

### 2. **Faster Service:**

People don't have to wait in line to pay their bills or transfer money thanks to this system, which offers quick service. Instant money transfers between accounts are possible with internet payment options.

### 3. **Higher Interest Rate:**

Online banking services offer their users higher interest rates. It has decreased the operational costs of banks, enabling them to provide better interest rates on consumer deposits.

### 4. **Service Quality:**

Internet banking has raised the level of client service. Using online banking to make payments is quick, secure, and effortless. Using e-banking apps, customers may keep track of all account-related transactions.

### 5. **24-7 Facility:**

Customers have access to e-banking services around-the-clock, seven days a week, 24 hours a day. Customers can access banking services and products at any time, from any location.

### 6. **Discounts:** The ability to take advantage of numerous discounts is another significant benefit of using online banking services. People benefit from several discount programs in stores that accept credit or debit cards.

### 7. **Paying bills online:** Because it offers a feature to pay any sort of bill, including energy, water supply, telephone, and other services, you don't need to stand in line to pay your bills.

## Drawbacks of E-Banking

### 1. **Security problems:**

Online hackers' hacking of e-banking systems has led to several security problems. Customers could suffer significant financial loss if they lose their login information when making payments.

### 2. **High Start-Up Cost:**

It costs a lot to set up different computers, software, hardware, a modem, and an internet network. Banking businesses must make significant investments to launch online banking services.

### 3. **Lack of Direct Interaction Between Clients and Banks:**

Direct communication between customers and banks is one barrier to internet banking. Customers communicate with banks online through their websites. Customers can occasionally not address their problems by contacting the bank virtually.

### 4. **Transaction issues:**

Banking servers frequently go down, which causes transactions to fail. Online payment issues that customers encounter are inconvenient.

### 5. **Challenging for beginners:**

It will be difficult for novices to understand e-banking; they may find it difficult. Because they are worried about losing money, customers are typically reluctant to explore all of the features and alternatives offered on the website or app..

### 6. **No Cash Deposit Platform:**

There is no platform for cash deposits in e-banking services. This suggests that e-banking customers must visit their local bank branches or automated teller machine locations to deposit cash instead of using the platform (whether they need instant services or not).

## Electronic Payment Systems

- An electronic payment system, often referred to as e-payment, is a digital solution that enables customers to make payments and conduct electronic or online transactions without the need for physical cash or cheques.
- It's the technological bridge that connects individuals and businesses to a world of financial possibilities.
- Instead of reaching for cash or writing cheques, we can now effortlessly transfer funds electronically with just a few clicks or taps

### 1.Credit Card

- A credit card is a thin rectangular piece of plastic or metal issued by a bank or financial services company that allows cardholders to borrow funds with which to pay for goods and services with merchants that accept cards for payment.
- Credit cards impose the condition that cardholders pay back the borrowed money, plus any applicable interest, as well as any additional agreed-upon charges, either in full by the billing date or over time.
- Credit cards charge interest on the money spent.
- Credit cards may be issued by stores, banks, or other financial institutions and often offer perks like cash back, discounts, or reward miles.
- Secured credit cards and debit cards offer options for those with little or bad credit.
- A credit card payment system refers to the infrastructure and processes that allow consumers to make purchases using credit cards.
- It involves a series of steps, technologies, and entities working together to authorize, process, and settle credit card transactions.

## **Components of credit card payment system:**

### **1..Card Issuer:**

- Issuing Bank: The financial institution (bank) that issues the credit card to the cardholder.
- Cardholder: The individual or entity to whom the credit card is issued.

### **2.Merchant:**

- Merchant Bank (Acquirer): The bank that provides the merchant with the means to accept credit card payments. The merchant bank is responsible for settling funds into the merchant's account.
- Merchant: The business or service provider that accepts credit card payments.

### **3.Transaction Process:**

- Authorization: When a cardholder makes a purchase, the merchant requests authorization from the issuing bank to ensure the card is valid and has sufficient credit.
- Authentication: The cardholder may need to provide additional authentication, such as a PIN or signature, depending on the type of transaction and the region.

### **4.Payment Gateway:**

- Online Transactions: For e-commerce or online transactions, a payment gateway facilitates the secure transmission of transaction data between the merchant's website and the payment processor.
- In-Store Transactions: In physical stores, the payment terminal connects to the payment gateway.



## 2. Debit Cards

A debit card is a payment card that is linked directly to a checking account, allowing the cardholder to make electronic transactions, access cash from ATMs, and make purchases without the need for physical cash. Debit cards offer a convenient and widely accepted method for conducting financial transactions.

Here are some key characteristics and features of debit cards:

**1. Linked to Checking Account:**

A debit card is typically linked to the cardholder's checking account with a financial institution, such as a bank or credit union.

**2. Electronic Transactions:**

Debit cards enable electronic transactions, allowing users to make purchases, pay bills, and withdraw cash from ATMs.

**3. PIN-Based Transactions:**

Many debit card transactions require the cardholder to enter a Personal Identification Number (PIN) for security verification. This is commonly used for ATM withdrawals and point-of-sale (POS) transactions.

**4. Direct Access to Funds:**

When a debit card is used, the funds are directly debited from the linked checking account. This makes it different from a credit card, where the cardholder borrows money and needs to repay it later.

**5. ATM Withdrawals:**

Debit cards can be used at ATMs to withdraw cash, check account balances, and perform other banking activities.

**6. Point-of-Sale (POS) Transactions:**

Debit cards can be used for in-store purchases at merchants that accept card payments. The cardholder can swipe or insert the card into a card reader, enter a PIN, or sign for the transaction.

**7. Online and Mobile Payments:**

Debit cards are commonly used for online shopping and various mobile payment methods. They may also be linked to digital wallets or mobile banking apps.

**8. Daily Purchase Limits:**

Financial institutions may impose daily limits on debit card transactions to enhance security and protect against unauthorized use.

### **3.Smart Card**

- A smart card is a physical card that has an embedded integrated chip that acts as a security token.
- Smart cards are typically the same size as a driver's license or credit card and can be made out of metal or plastic.
- The chip on a smart card can be either a microcontroller or an embedded memory chip.
- Smart cards are designed to be tamper-resistant and use encryption to provide protection for in-memory information.
- Cards with microcontroller chips can perform on-card processing functions and manipulate information in the chip's memory.
- Smart card microprocessors or memory chips exchange data with card readers and other systems over a serial interface. The smart card itself is powered by an external source, usually the smart card reader.
- Smart cards communicate with readers via direct physical contact or using RFID or another short-range wireless connectivity standard.
- The chip or processor on the card contains data that the card reader accesses.
- The processor on the card contains a basic operating system (OS) that lets the card hold, transmit and protect the data.

**Two Types of Smart Cards:**

**1.Contact Smart Cards:** Require physical contact with a card reader for data transmission.

**2.Contactless Smart Cards:** Use radio-frequency identification (RFID) or near-field communication (NFC) technology for wireless communication with card readers.

### **Uses of smart cards**

Smart cards are generally used in applications that must deliver fast, secure transactions. They can protect personal information in numerous situations, including the following:

- credit cards;
- other types of payment cards;
- corporate and government identification cards;
- transit fare payment cards; and
- e-documents, such as electronic passports and visas.

## **4.Credit Account**

- In the context of e-banking, a credit account refers to a type of financial account that allows users to borrow money up to a specified credit limit.
- Credit accounts are commonly associated with credit cards and lines of credit.
- Credit cards provide users with a revolving line of credit, allowing them to make purchases up to a predetermined credit limit.
- The outstanding balance can be paid in full by the due date or carried over, incurring interest charges on the remaining balance.
- E-banking platforms allow users to access and manage their credit card accounts online.
- This includes checking balances, reviewing transactions, and making payments.
- Some e-banking platforms offer personal lines of credit, which are flexible borrowing arrangements where users can access funds up to a predetermined credit limit. Interest is typically charged only on the amount borrowed.
- Users can view their credit account statements online, detailing transactions, current balances, available credit, and other relevant information.
- Users may have the ability to request credit limit increases or decreases through the e-banking platform, depending on their financial needs and creditworthiness.
- Credit accounts in e-banking provide users with the convenience of managing their credit-related activities online, from monitoring transactions to making payments and accessing account statements. Users should be aware of the terms and conditions

associated with their credit accounts, including interest rates, fees, and repayment terms.

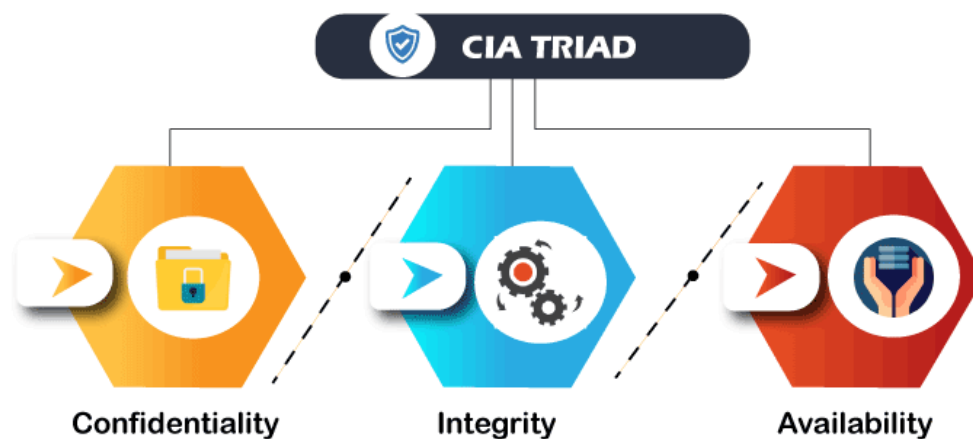
## Cyber Security

"Cyber Security is the body of technologies, processes, and practices designed to protect networks, devices, programs, and data from attack, theft, damage, modification or unauthorized access."

Cyber refers to the technology that includes systems, networks, programs, and data. And security is concerned with the protection of systems, networks, applications, and information. In some cases, it is also called electronic information security or information technology security.

### Cyber Security Goals

- Cyber Security's main **objective is to ensure data protection**. The security community provides a triangle of three related principles to protect the data from cyber-attacks. This principle is called the **CIA triad**.
- The CIA model is designed to guide policies for an organization's information security infrastructure. When any security breaches are found, one or more of these principles has been violated.
- We can break the **CIA model into three parts**: Confidentiality, Integrity, and Availability.



## **Confidentiality**

Confidentiality is equivalent to privacy that avoids unauthorized access of information. It involves ensuring the data is accessible by those who are allowed to use it and blocking access to others. It prevents essential information from reaching the wrong people. Data encryption is an excellent example of ensuring confidentiality.

## **Integrity**

This principle ensures that the data is authentic, accurate, and safeguarded from unauthorized modification by threat actors or accidental user modification. If any modifications occur, certain measures should be taken to protect the sensitive data from corruption or loss and speedily recover from such an event.

## **Availability**

This principle makes the information to be available and useful for its authorized people always. It ensures that these accesses are not hindered by system malfunction or cyber-attacks.

# **Cryptography**

- "Crypto" indicates "hidden," and "graphy" indicates "writing," respectively.
- Cryptography is technique of securing information and communications through use of codes so that only those person for whom the information is intended can understand it and process it
- Cryptography is the art and science of encoding and decoding information in a secure way to ensure secure communication.
- It involves techniques for converting plaintext (readable data) into ciphertext (encoded data) and vice versa.
- Encryption and decryption are fundamental processes in cryptography used to secure and protect information.

**Encryption:**

- This is the process of converting plaintext (normal, readable data) into ciphertext (encoded, unreadable data) using an algorithm and a key.
  - The goal is to make the data unreadable to anyone who doesn't possess the correct key.
- There are two main types of encryption

**Types of Encryption**

1. **Symmetric Encryption**– Data is encrypted using a key and the decryption is also done using the same key.
2. **Asymmetric Encryption**-Asymmetric Cryptography is also known as public-key cryptography. It uses public and private keys to encrypt and decrypt data. One key in the pair which can be shared with everyone is called the public key. The other key in the pair which is kept secret and is only known by the owner is called the private key. Either of the keys can be used to encrypt a message; the opposite key from the one used to encrypt the message is used for decryption.

**Public key**– Key which is known to everyone. Ex-public key of A is 7, this information is known to everyone.

**Private key**– Key which is only known to the person who's private key it is.

**Authentication**-Authentication is any process by which a system verifies the identity of a user who wishes to access it.

**Non- repudiation**– Non-repudiation means to ensure that a transferred message has been sent and received by the parties claiming to have sent and received the message. Non-repudiation is a way to guarantee that the sender of a message cannot later deny having sent the message and that the recipient cannot deny having received the message.

**Integrity**– to ensure that the message was not altered during the transmission.

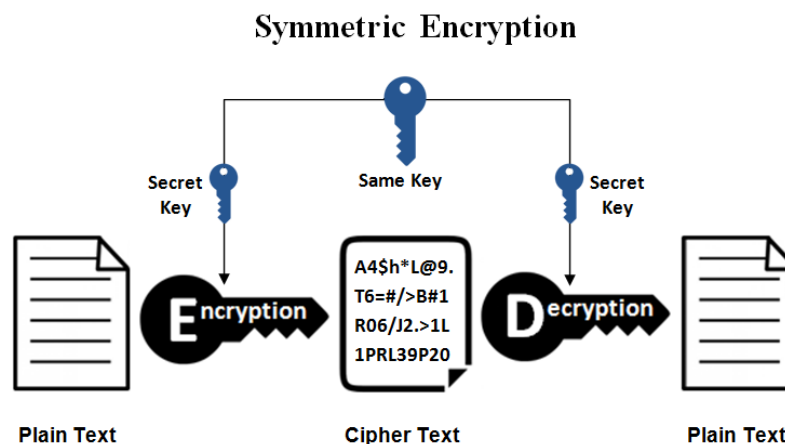
**Message digest** -The representation of text in the form of a single string of digits, created using a formula called a one way hash function. Encrypting a message digest with a private key creates a digital signature which is an electronic means of authentication..

**Decryption:**

- Decryption is the reverse process of encryption.
- It involves converting the ciphertext back into plaintext using the appropriate decryption algorithm and key.

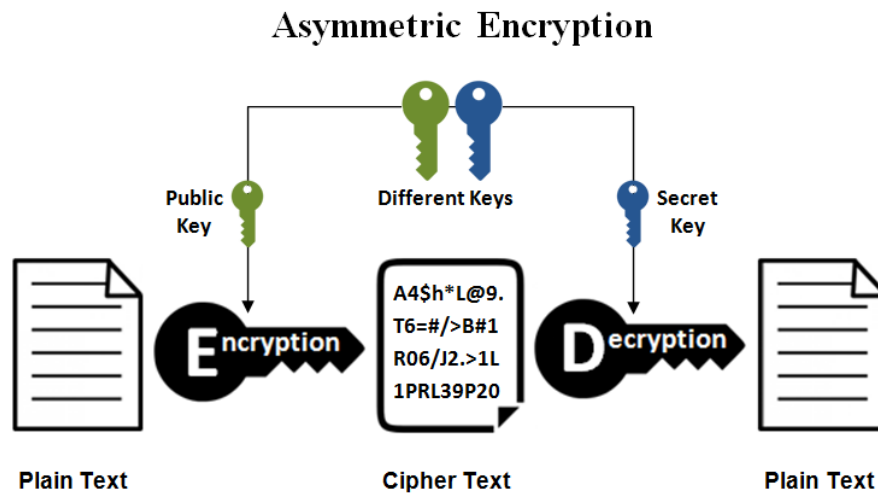
**Symmetric Key Cryptography / Secret-key cryptography:**

- It is an encryption system where the sender and receiver of message use a single common key to encrypt and decrypt messages.
- Symmetric Key Systems are faster and simpler but the problem is that sender and receiver have to somehow exchange key in a secure manner.
- The most popular symmetric key cryptography system are Data Encryption System(DES) and Advanced Encryption System(AES).

**Public Key Cryptography / Asymmetric Key Cryptography**

- Under this system a pair of keys is used to encrypt and decrypt information.
- A receiver's public key is used for encryption and a receiver's private key is used for decryption. Public key and Private Key are different.

- Even if the public key is known by everyone the intended receiver can only decode it because he alone know his private key.
- The most popular asymmetric key cryptography algorithm is RSA algorithm



### Digital Signature

- A digital signature is a mathematical technique which validates the authenticity and integrity of a message, software or digital documents.
- It allows us to verify the author name, date and time of signatures, and authenticate the message contents.
- The digital signature offers far more inherent security and intended to solve the problem of tampering and impersonation (Intentionally copy another person's characteristics) in digital communications.
- A digital signature is a cryptographic technique that provides a secure way to sign electronic documents or messages, confirming the authenticity and integrity of the content.
- Digital signatures play a crucial role in ensuring the security and validity of digital communications and transactions.



## Algorithms in Digital Signature

A digital signature consists of three algorithms:

### 1. Key generation algorithm

The key generation algorithm selects private key randomly from a set of possible private keys. This algorithm provides the private key and its corresponding public key.

### 2. Signing algorithm

A signing algorithm produces a signature for the document.

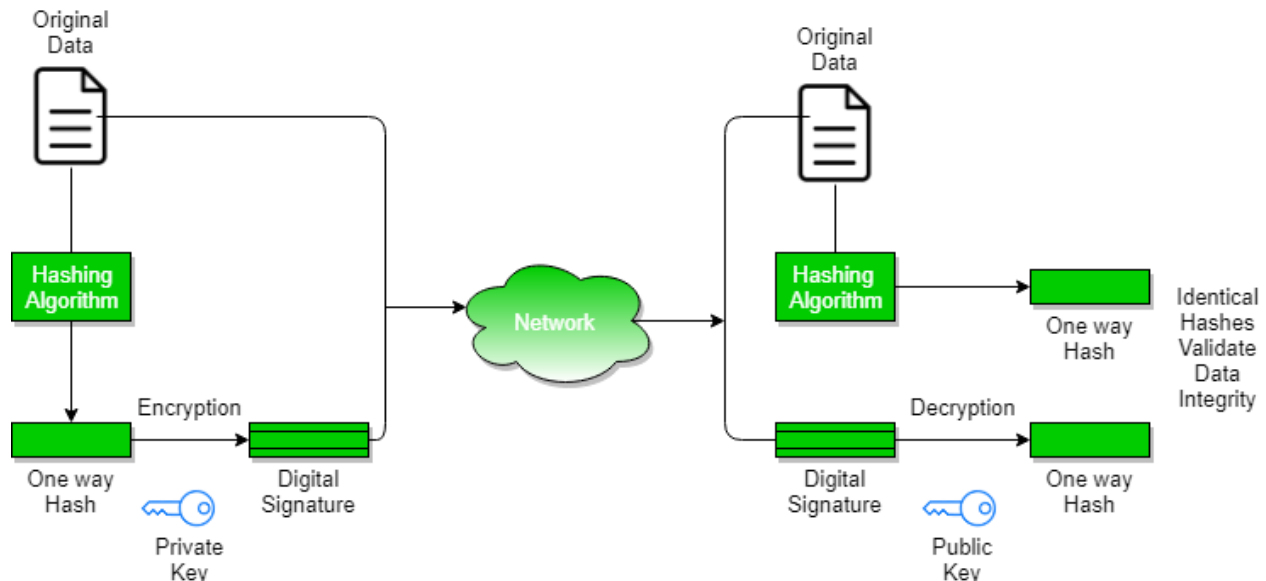
### 3. Signature verifying algorithm

A signature verifying algorithm either accepts or rejects the document's authenticity.

## The steps followed in creating digital signature are :

1. Message digest is computed by applying hash function on the message and then message digest is encrypted using private key of sender to form the digital signature. (digital signature = encryption (private key of sender, message digest) and message digest = message digest algorithm(message)).
2. Digital signature is then transmitted with the message.(message + digital signature is transmitted)
3. Receiver decrypts the digital signature using the public key of sender.(This assures authenticity, as only sender has his private key so only sender can encrypt using his private key which can thus be decrypted by sender's public key).
4. The receiver now has the message digest.
5. The receiver can compute the message digest from the message (actual message is sent with the digital signature).
6. The message digest computed by receiver and the message digest (got by decryption on digital signature) need to be same for ensuring integrity.

Message digest is computed using one-way hash fun



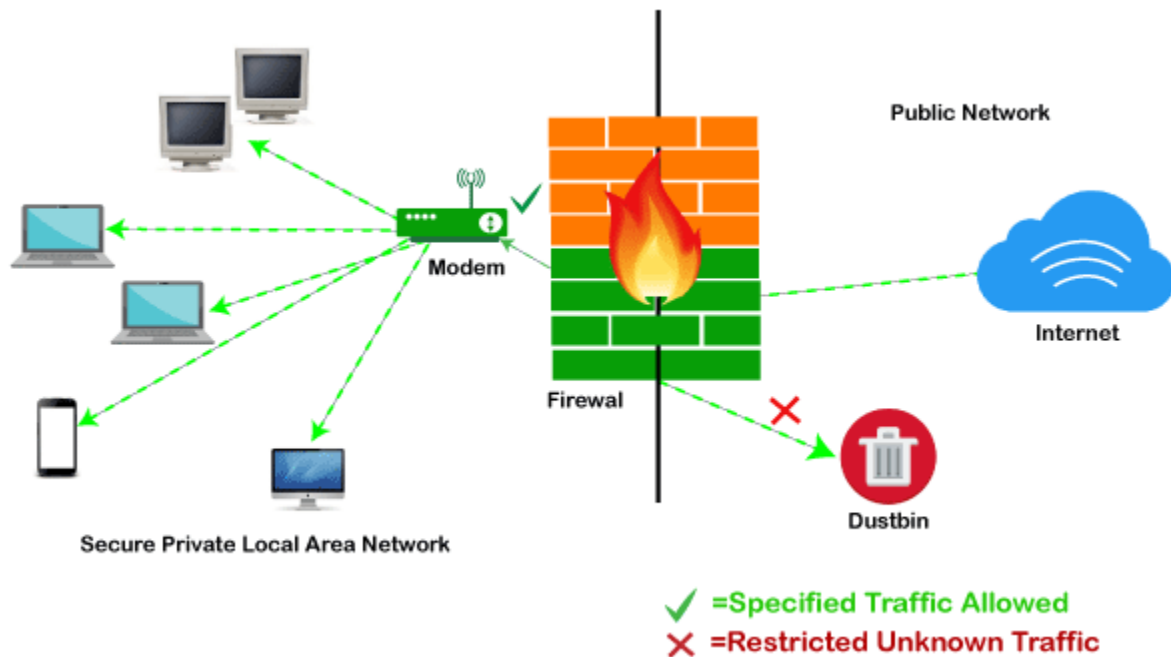
## Firewall

- A firewall can be defined as a special type of network security device or a software program that monitors and filters incoming and outgoing network traffic based on a defined set of security rules.
- It acts as a barrier between internal private networks and external sources (such as the public Internet).
- The primary purpose of a firewall is to allow non-threatening traffic and prevent malicious or unwanted data traffic for protecting the computer from viruses and attacks.
- A firewall is a cyber security tool that filters network traffic and helps users block malicious software from accessing the Internet in infected computers.

### How does a firewall work?

A firewall system analyzes network traffic based on pre-defined rules. It then filters the traffic and prevents any such traffic coming from unreliable or suspicious sources. It only allows incoming traffic that is configured to accept.

Typically, firewalls intercept network traffic at a computer's entry point, known as a port. Firewalls perform this task by allowing or blocking specific data packets (units of communication transferred over a digital network) based on pre-defined security rules. Incoming traffic is allowed only through trusted IP addresses, or sources.



## Functions of Firewall

Firewalls have become so powerful, and include a variety of functions and capabilities with built-in features:

- Network Threat Prevention
- Application and Identity-Based Control
- Hybrid Cloud Support
- Scalable Performance
- Network Traffic Management and Control

- Access Validation
- Record and Report on Events

**\*\*\*\*\* END OF MODULE 2 \*\*\*\*\***

### **MODULE III**

Digital Marketing: Search Engine Optimization (SEO), Social Media, Content Marketing; Email Marketing, Mobile Marketing. Challenges for Digital Marketing: Increased Security Risk, Cluttered Market, Less Focus on Keywords, More Ad Blockers, Increased Ad Costs.

## Search Engine Optimization(SEO)

- **Search Engine Optimization** refers to set of activities that are performed to increase number of desirable visitors who come to your site via search engine.
- It is the practice of improving your website's visibility on search engines like Google, making it easier for people to find your site when they search for relevant topics or keywords.
- It involves optimizing various elements of your site to rank higher in search results and attract more organic (non-paid) traffic.
- It is the process of improving the ranking (visibility) of a website in search engines. The higher (or more frequently) a website is displayed in a search engine list (like Google), the more visitors it is expected to receive.

### Why is SEO important?

1. To help gain more visitors
2. Important for social promotion of a website
3. It plays an important role in improving the business of a commercial site
4. Improving user experience

### Types of Search Engine Optimization (SEO) Techniques

- **Black-Hat SEO**: Black hat SEO refers to the untrustworthy strategies utilized by certain website admins to get higher search engine ranking. Black hat SEO techniques are typically geared towards search bots first, rather than human readers.
- **White-Hat SEO**: White Hat SEO is an ethical approach to optimizing your website for search engines. By following established guidelines and best practices, it aims to improve your site's search engine rankings while providing a positive user experience.

### How Search Engines Work: Crawling, Indexing, and Ranking

Search engines play a pivotal role in helping users find relevant information on the vast expanse of the internet. Understanding how search engines work involves delving into three key processes: crawling and indexing, ranking factors, and the algorithms that power these systems.

**Crawling:**

- Search engines use automated programs known as web crawlers or spiders to traverse the web.
- These crawlers start by visiting a few known web pages and then follow links from those pages to discover new ones.
- The process is recursive, leading to the exploration of a vast network of interconnected pages.
- Crawlers operate by sending requests to web servers, retrieving HTML content, and extracting relevant information such as links, text, and metadata.
- This information is then sent back to the search engine's servers for further processing.

**Indexing:**

- Once the crawler collects data from web pages, the next step is indexing. Indexing involves organizing the information in a way that facilitates quick and efficient retrieval.
- Search engines create a database or index containing details about the content of each web page, including keywords, links, and other relevant data.
- Indexing allows search engines to quickly match user queries with the most relevant web pages.
- The goal is to build a comprehensive and searchable catalog of the web.

**Ranking:**

While crawling and indexing help search engines amass a vast repository of information, it's the ranking factors that determine the order in which results appear on the search engine results pages (SERPs). Search engines use complex algorithms to assess and rank pages based on various criteria.

Here are some key ranking factors:

- **Relevance:** Search engines analyze the relevance of a page's content to the user's query. Pages with content closely matching the search terms are considered more relevant.

- **Authority:** Authority is determined by the number and quality of links pointing to a page. Pages with a higher number of authoritative backlinks are deemed more trustworthy and receive higher rankings.
- **User Experience:** Factors like page load speed, mobile-friendliness, and overall user experience contribute to ranking. Search engines prioritize pages that provide a positive experience for users.
- **Content Quality:** High-quality, informative, and well-structured content is favored by search engines. Content that meets user needs and expectations is more likely to rank higher.

## Social Media in Digital Marketing

- Social Media is a trendy way of **electronic communication** through which we can create our online communication sites to share information, images, ideas, audios, videos, and other content with our friends, business partners, relatives, as well as customers.
- Social Media Marketing is a platform through which we can present our business in front of the audience.
- It is mainly used to promote our business, increase website traffic, customer engagement, brand awareness, and other marketing goals by creating various forms of content (videos, blogs, infographics, etc.) in various social media platforms such as Facebook, Instagram, Twitter, LinkedIn, etc.
- We use these social media platforms to connect with people, promote our business, increase sales, and create awareness about the products as well as services.

**There are the following three Social Media Classification tools -**

### 1. Social Publishing

Social publishing allows us to publish information in the content form(written text and videos).

**Example:** Blog, YouTube.



## 2. Social Networking

Social Networking helps us to stay connected with our friends, business partners, relatives, and customers.

**Example:** LinkedIn, Twitter, Facebook

## 3. Photo-based Social Networking

Photo-based social networking is used to share photos using social networking sites.

**Example:** Pinterest, Snapchat, Instagram

## Social Media Marketing Platforms

Social Media Marketing includes various social media platforms to reach new customers, promote their business, create brand awareness, and increase sales.

Some most common social media platforms that we frequently used in social media marketing are given below -

### 1. Facebook



Facebook is the best social media marketing platform, which is founded by **Mark Zuckerberg** on February 4, 2004. It allows us to invite and connect with our friends, relatives, colleagues, and customers by sending them messages, images, audios, and videos. It also allows us to like and comment on the posts, which are shared by them.

- Facebook helps us to easily reach the targeted audience.
- It allows us to share budget-friendly ads to the audience.
- Using Facebook, we can learn and use a new market strategy at a low cost.
- It provides various marketing platforms.
- It allows organizations to communicate with clients.

## 2. Twitter



Twitter is one of the most effective, popular, and fast-paced social media marketing platform created by **Jack Dorsey, Noah Glass, Biz Stone, Evan Williams**, and launched in **July 2006**. It is an **SMS-based communication** platform, which allows registered users to read and write small messages called "**tweets**."

- It helps us to increase customer satisfaction.
- It allows us to continuously send information in the form of small messages called "tweets."
- It helps us to establish a stronger relationship with customers.
- It improves organic search engine ranking.
- It is a very efficient platform for gathering feedback from customers.

### 3.Instagram



Instagram is maintained by **Facebook**. It is an effective tool to reach the audience and allows the marketer to share images, memes, and videos to promote their business. According to a survey, 80% of accounts follow a business on Instagram.

- Instagram's Global rank (Worldwide rank) is 5<sup>th</sup> on the internet.
- Instagram helps marketers to enhance their branding.
- It is a marketer-friendly platform.
- It helps marketers to drive traffic and grow their business.
- It helps marketers to acquire customers easily.
- On Instagram, content is available in the form of images and videos, which helps customers to understand the product in a very simple way.
- Instagram's brand engagement and visual content are ten times higher than Facebook.

### 4.Linkedin



LinkedIn is the best B2B (Business 2 Business) social media marketing platform, which was founded in 2002. It allows us to create profiles as a fresher or as a professional. It is a place that helps us to search for jobs, stay connected with professionals, recruit new employees, and discuss business ideas with experienced employees to promote our business. A company profile on LinkedIn not only helps us to generate the local leads but also helps us to draw global leads.

There are the following reasons which make LinkedIn as a very effective platform for social media marketing -

- It provides an opportunity to stay updated about new technologies.
- It helps us to display and update our resume to search for new job opportunities.
- It is a free platform that mainly focused on career development.
- It helps to build and promote business brands.
- It is used to generate more leads.

## 5. Pinterest



Pinterest is a combination of the two words "Pin" (Thumbtack) and "Interest" (Interesting). It is quite different from all other social media marketing platforms. It is an image-pinning website introduced in 2009.

- Pinterest is the fastest-growing platform for online content distribution.
- It is mostly used to create brand awareness and increase website leads.

- Its user-friendly platform allows us to create a visual profile for business and publish news.
- Its visual-heavy social network helps us to build more traffic on our website at a low cost.

## 6.YouTube



YouTube is an excellent **free video-sharing platform** for social media marketing. It was created in **2005**. YouTube helps us to create and upload our videos on the valuable content and deliver it to the audience in the form of tutorials.

- YouTube is the 2<sup>nd</sup> largest search engine and the 3<sup>rd</sup> most visited website.
- It is the best and easiest way to learn new technologies.
- It helps us to promote and sell our products worldwide.
- It is completely free to use and helps to acquire qualified traffic.
- It will expose you to connect with a huge audience.

## 7.Snapchat



Snapchat is a great platform for adults. It is free to download. It allows us to create a new type of social media on a network. Snapchat mobile app is used to share photos, videos, and doubles as messaging services for users.

- It allows us to share and collect snaps from specific events to create stories on the social media platform.
- It is used to add a filter on photos to make them more attractive.
- It allows customers to interact with other experienced customers to know about the pros and cons of a product.
- Using Snapchat, customers can directly communicate with companies.
- It is a user-friendly platform for newcomers.

## 8. Google+



Google+ was a powerful social media marketing tool, which was developed by **Google**. It helped us to improve our local search visibility, build relationships with customers, and other businesses.

- Google+ allows us to follow other people.
- It allows us to share information, images to target customers.
- It helps us to find other people with similar interests.

## 9.Starbucks



Starbucks is one of the engaging brands on Facebook. The main objective of introducing Starbucks is that it helps to build an online community of loyal fans and engage with them.

## 10.TikTok



TikTok is one of the best social media marketing platforms launched in 2018. It is a popular video streaming and sharing app which allows us to create and share a 15-second video on a particular topic.

There are the following reasons to use TikTok for social media marketing -

- It targets a huge audience in the easiest way.
- It creates better user engagement.
- It allows us to create a small video and share it with their followers to get more likes and comments to grow our business.

## Content Marketing

- Content marketing is a marketing strategy involving the creation and sharing of relevant materials, such as articles, videos, social media posts, and emails, to attract and engage audiences, establish expertise, promote brand awareness, and drive sales.
- One example is this infographic. It's visual content shared in a social media post
- In many ways, content marketing is the complete customer acquisition channel.
- It drives traffic, builds trust, establishes your authority, and generates revenue.
- Content marketing involves creating and distributing valuable, relevant, and consistent content to attract and engage a target audience.

### Here are five examples of content marketing

#### 1. Blog Posts:

Companies often maintain blogs to share informative and engaging articles related to their industry, products, or services.

#### 2. Infographics:

Visual representations of information can be highly shareable and help convey complex ideas in a digestible format.

#### 3. Videos:

Video content is incredibly popular. It can include product demonstrations, tutorials, customer testimonials, or even entertaining content related to the brand.

#### 4. Podcasts:

Creating and hosting podcasts can establish a brand as an authority in its industry. Podcasts are an excellent medium for in-depth discussions and interviews.

#### 5. Social Media Posts:

Sharing content on platforms like Facebook, Instagram, Twitter, and LinkedIn can help reach a broader audience. This content may include articles, images, videos, or infographics.



**6. Ebooks and Whitepapers:**

In-depth, long-form content like ebooks and whitepapers can be used to showcase expertise and provide valuable insights. These are often used as lead magnets to collect customer information.

**7. Webinars:**

Hosting webinars allows companies to interact with their audience in real-time, providing educational content and addressing questions.

**8. Case Studies:**

Real-life success stories and case studies can demonstrate how a product or service has positively impacted customers.

**9. Email Newsletters:**

Regular newsletters can keep subscribers informed about industry trends, product updates, and relevant news.

**10. Interactive Content:**

Quizzes, polls, and interactive infographics or maps can engage users and encourage them to spend more time with the content.

**11. How-to Guides and Tutorials:**

Step-by-step guides or tutorials help users understand how to use a product or service effectively.

**12. Surveys and Research Reports:**

Sharing industry-specific surveys or research reports can position a brand as a thought leader and provide valuable insights.

**13. Visual Content:**

Memes, GIFs, and visually appealing images can be shared on social media to entertain and engage the audience.

**14. Interactive Apps or Tools:**

Creating tools or apps that solve a problem for your target audience can be an innovative way to provide value and generate interest.

## **E-Mail Marketing**

- Email marketing is a digital marketing strategy that involves sending emails to a group of individuals with the goal of promoting products, services, or building relationships with customers.
- It is a direct form of communication between a business and its target audience, typically existing or potential customers.
- Promoting a business by sending emails and newsletters is what we call email marketing. Today's marketers need to do more with less.
- They need to connect with their audience in a highly personalized way, while staying on budget.
- Marketers who are good at email marketing can connect with their customers in a highly targeted way. They will be successful in delivering ROI and revenue back to the business.
- No marketing category has the longevity of email marketing. While some marketing trends come and go, email remains the most powerful channel available to the modern marketer.
- Email is a tool that nearly everyone uses today, and it continues to grow and be more prevalent in the lives of people around the world.
- There are three times more email accounts than there are Facebook & Twitter accounts combined.
- Email Marketing is by far the most effective channel to attract, engage and connect with an audience to drive sales and revenue for your business.

### **What is Mailing List?**

A mailing list is simply a list of addresses to which the same information is being sent. If you were a magazine publisher, you would have a list of the mailing addresses of all the subscribers to the magazine. In the case of an electronic mailing list, we use a list of email addresses from people interested in hearing about or discussing a given topic.

## There are two types of Email Mailing Lists –

### 1. Announcement Lists

These are used so that one person or group can send announcements to a group of people, much like a magazine publisher's mailing list is used to send out magazines. For example, a band may use a mailing list to let their fan base know about their upcoming concerts.

### 2. Discussion List

It is used to allow a group of people to discuss topics amongst themselves, with everyone able to send mail to the list and have it distributed to everyone in the group. This discussion may also be moderated, so only selected posts are sent on to the group as a whole, or only certain people are allowed to send to the group. For example, a group of model plane enthusiasts might use a mailing list to share tips about their model construction and flying.

## Services of E-Mail Marketing

1. **Promotional Campaigns:** Businesses use email marketing to promote new products, services, or special offers to their audience.
2. **Customer Engagement:** Emails can be used to engage and interact with customers by sharing valuable content, updates, or seeking feedback.
3. **Customer Retention:** Emails can be employed to maintain and strengthen relationships with existing customers, encouraging repeat business and brand loyalty.
4. **Educational Content:** Companies can use email marketing to provide educational content such as tutorials, how-to guides, or industry insights, positioning themselves as experts in their field.
5. **Event Promotion:** Businesses often utilize email to promote and provide information about events, webinars, or conferences.
6. **Transactional Emails:** Automated emails are triggered by specific customer actions, such as purchase confirmations, shipping notifications, or password resets.

## Mobile Marketing

Mobile marketing is any advertising activity that promotes products and services via mobile devices, such as tablets and smartphones. It makes use of features of modern mobile technology, including location services, to tailor marketing campaigns based on an individual's location.

Mobile marketing is a way in which technology can be used to create personalized promotion of goods or services to a user who is constantly connected to a network.

- Mobile marketing is an advertising activity that uses mobile devices, such as text promos and apps via push notifications.
- Mobile marketing audiences are grouped by behaviors and not by demographics.
- Mobile marketing is a subset of mobile advertising.
- Marketing faces privacy issues related to data collection.
- Mobile marketing is much more affordable than traditional marketing on television and radio.

### Pros

- Easy to set up and monitor
- Cost-effective
- Real-time access to potential customers

### Cons

- Data privacy concerns
- Possible increased data costs for the user
- Little room for error

## Types of Mobile Marketing

Mobile marketing works by connecting with customers through their mobile devices encouraging them to interact with your brand. Here are some types of mobile marketing:

### **1.In-App Marketing**

In-app marketing is marketing through mobile apps. In-app marketing can be either for your own brand or for other brands. For your own brand, In-App marketing refers to the use of banners, overlays, and inbox messaging to market your products to your app users. You can engage customers who are active users of your brand's app and guide their user experience in your app.

### **2.Mobile Push Marketing**

Mobile push marketing sends marketing messages on mobile devices using push technology. It allows you to deliver relevant information to users even if they are not on your website or app. Mobile push notifications allow you to communicate with existing and potential customers in a simple and effective way.

### **3.SMS Marketing**

SMS marketing is a marketing campaign via text message. You can send promotions, alerts, offers, and more to current and potential customers' phones. Text marketing campaigns can be successful because most people have their phones with them, and it is difficult to ignore push notifications.

### **4.Social Media Marketing**

Social media platforms typically have billions of users, making social media a great place to advertise and promote your business. Social media marketing allows you to make a more personal connection with consumers through Facebook ads, promoted tweets, or shoppable pins on Pinterest.

### **5.QR Code Marketing**

QR code marketing allows you to create a link to your website, download your app, review your business, or sign up for your newsletter. Customers can scan the QR code with the camera on their smartphones and it is simple to use. QR code marketing allows you to engage more customers and can be used for almost any marketing purpose.

## Challenges for Digital Marketing

- Digital marketing, while highly effective, comes with its own set of challenges.
- While digital marketing offers various advantages, it also introduces certain security risks that businesses and marketers need to address.
- To address these challenges, businesses should invest in robust cybersecurity measures, conduct regular security audits, educate their teams on best practices, and stay informed about emerging threats in the digital marketing space.
- Implementing a proactive and comprehensive approach to security is crucial to maintaining the integrity of digital marketing campaigns and safeguarding customer trust.

### 1.Increased Security Risk

While digital marketing offers various advantages, it also introduces certain security risks that businesses and marketers need to address. Here are some challenges related to increased security risks in digital marketing:

#### 1.Data Breaches:

The collection and storage of customer data for targeted marketing purposes increase the risk of data breaches. Cybercriminals may exploit vulnerabilities to gain unauthorized access to sensitive customer information.

#### 2.Phishing Attacks:

Phishing attacks often target digital marketing channels, such as email and social media, to trick users into providing personal information. Marketers need to educate both their teams and customers about recognizing and avoiding phishing attempts.

#### 3.Ad Fraud:

Ad fraud is a significant concern in digital marketing, involving various malicious activities like click fraud and impression fraud. Fraudsters can manipulate digital advertising metrics, leading

to wasted ad spend and inaccurate performance reporting.

#### **4.Social Media Account Hijacking:**

Unauthorized access to social media accounts can lead to reputational damage and misuse of brand communication channels. Implementing strong authentication measures and regularly updating passwords can help mitigate this risk.

#### **5.API Security Concerns:**

Application Programming Interfaces (APIs) play a crucial role in connecting different digital marketing tools. Insecure APIs can be exploited, compromising the integrity and confidentiality of data transmitted between systems.

#### **6.Compliance Challenges:**

Strict data protection regulations, such as GDPR and CCPA, require businesses to handle customer data responsibly. Ensuring compliance with these regulations adds complexity to digital marketing efforts and necessitates robust security measures.

#### **7.Mobile Security Risks:**

As mobile devices become primary platforms for digital engagement, the security of mobile apps and websites is critical. Mobile-specific vulnerabilities, such as insecure mobile payment processes, pose risks to users' personal information.

#### **8.Ransomware Threats:**

Ransomware attacks can disrupt digital marketing activities by encrypting critical data or systems. Regular backups, employee training, and cybersecurity measures are essential to mitigate the impact of ransomware.

## 2. Cluttered Market

A cluttered market in digital marketing refers to an environment where there is a high level of competition, saturation, and noise, making it challenging for businesses to stand out and effectively reach their target audience.

**Several factors contribute to a cluttered digital marketing landscape:**

**1. High Competition:**

The accessibility and affordability of digital marketing channels have led to increased competition. Many businesses are vying for attention in the same space, especially on popular platforms like social media and search engines.

**2. Abundance of Content:**

The internet is flooded with content, ranging from blog posts and videos to social media updates. This content saturation makes it difficult for businesses to create something unique that captures audience attention.

**3. Ad Overload:**

Digital advertising has become a pervasive part of the online experience. Users are constantly exposed to a barrage of ads across websites, social media platforms, and search engines, contributing to ad fatigue.

**4. Fragmented Audiences:**

With users spread across various digital platforms and channels, businesses must navigate a fragmented audience landscape. Crafting messages that resonate with diverse audiences becomes a complex task.

**5. Content Replication:**

Marketers often replicate successful content formats or strategies, leading to a sense of uniformity in the market. Originality becomes crucial in breaking through the clutter.

**6. Noise in Social Media:**

Social media platforms are a major battleground for digital marketing. The sheer volume of posts, updates, and ads can make it difficult for businesses to ensure their messages are seen and heard amidst the noise.



**7. Information Overload:**

The digital era has brought about an abundance of information. Consumers may feel overwhelmed, and businesses must work harder to present information in a concise and compelling manner.

**8. Lack of Trust:**

Consumers may become skeptical due to the proliferation of content and ads. Building trust is challenging when users are bombarded with messages from various sources.

### **3.Less Focus on Keywords**

The focus on keywords in digital marketing has evolved over time, and there has been a shift towards a more holistic and user-centric approach. While keywords remain important for search engine optimization (SEO) and online visibility, digital marketing strategies now emphasize broader aspects to provide a better user experience.

Here are some reasons why there is less exclusive focus on keywords in contemporary digital marketing:

**1. User Intent and Context:**

Search engines increasingly prioritize understanding user intent and context rather than relying solely on matching keywords. Content that addresses user needs comprehensively and provides valuable information tends to rank higher.

**2. Semantic Search:**

Search engines have become more sophisticated in interpreting the meaning behind words. Semantic search considers the relationship between words, understanding context and user intent beyond strict keyword matching.

**3. Content Quality and Relevance:**

Rather than stuffing content with keywords, the emphasis is on creating high-quality, relevant, and engaging content. Google's algorithms are designed to reward content that genuinely meets user needs.

**4. Long-Tail Keywords:**

Long-tail keywords, which are more specific and reflect natural language queries, have gained importance. They often align better with user intent and are valuable in targeting niche audiences.

**5. User Experience and Engagement:**

Digital marketers recognize the importance of providing a positive user experience. This includes having a well-designed website, fast loading times, mobile responsiveness, and engaging multimedia content—all factors that contribute to overall user satisfaction.

**6. Voice Search:**

The rise of voice search has altered search patterns, with users posing questions in a conversational tone. Optimizing for natural language queries and considering spoken phrases rather than traditional keywords has become crucial.

**7. AI and Machine Learning:**

Search engines, powered by AI and machine learning, are better able to understand user behavior and preferences. This allows for more personalized search results, and marketers need to adapt their strategies accordingly.

**8. Social Media Influence:**

Social media platforms play a significant role in digital marketing. While keywords are relevant in social media, the emphasis is often on creating shareable, engaging content that resonates with the audience.

## **4. More Ad Blockers**

Ad blockers are tools designed to remove or hide content identified as advertising during browsing. These adblockers can exist in different forms:

1. Independent programs for browsers or operating systems
2. Plugins and browser extensions

If the usage of ad blockers continues to increase, it can amplify the aforementioned effects on digital marketing. Here are some additional considerations when there is a higher number of ad blockers:

**1.Erosion of Traditional Advertising Models:**

Advertisers may need to reevaluate traditional advertising models that heavily rely on display ads. This could lead to a fundamental shift in how brands approach online advertising and explore alternative revenue streams.

**2.Rise of Ad Blocker Blockers:**

As the use of ad blockers becomes more widespread, there may be a corresponding rise in technologies and methods designed to circumvent or counter ad blockers. However, this can also lead to a continuous cycle of innovation and counteraction between ad blockers and ad blocker blockers.

**3.Collaboration with Ad Blocker Companies:**

Some advertisers may choose to collaborate with ad blocker companies to find common ground. This could involve developing advertising solutions that are acceptable to users while still providing a revenue stream for publishers.

**4Diversification of Marketing Channels:**

With the challenges posed by ad blockers, marketers may increasingly diversify their strategies across various marketing channels, including email marketing, search engine optimization (SEO), and other forms of online and offline advertising.

**5.Increased Ad Costs**

An increase in advertising costs can have several implications for digital marketing strategies. Here are some ways in which rising ad costs can impact digital marketing:

**1.Budget Constraints:**

Higher ad costs can strain marketing budgets, making it challenging for businesses, especially small and medium-sized enterprises, to maintain or increase their advertising presence.

**2.Shift in Advertising Channels:**

Businesses may explore alternative, more cost-effective advertising channels. For example, if paid social media advertising becomes too expensive, marketers might focus more on content marketing, organic social media, or influencer collaborations to maintain visibility.

**3.Increased Competition:**As ad costs rise, the competition for ad space intensifies. This can lead to a more crowded advertising landscape, making it harder for businesses to stand out.

Marketers may need to invest in more sophisticated targeting and creative strategies to differentiate themselves.

**4. Investment in Customer Retention:**

With the cost of acquiring new customers potentially rising, businesses may invest more in customer retention strategies. This includes personalized communication, loyalty programs, and customer engagement initiatives to maximize the lifetime value of existing customers.

**\*\*\*\*\* END OF MODULE 3 \*\*\*\*\***

#### **MODULE IV**

Digital Marketing: Pay per Click-Search Engine Advertising, Advantages, Factors, Conversion Rate Optimization (CRO); Digital Marketing- Web Analytic. Social Media Marketing: Face book, Pinterest, Twitter, LinkedIn, YouTube, Google Adwords, Google Analytics; Issues andFuture enhancement of Digital Marketing.

## Pay-Per-Click (PPC)-Search Engine Advertising

- Search engine advertising is a form of online advertising that allows advertisers to display their ads on search engine results pages (SERPs).
- The most common type of search engine advertising is through Pay-Per-Click (PPC) campaigns, where advertisers bid on keywords relevant to their products or services.
- Google Ads is the most well-known and widely used platform for search engine advertising, but other search engines like Bing also offer similar services.
- PPC or pay-per-click is a type of internet marketing which involves advertisers paying a fee each time one of their ads is clicked.
- Simply, you only pay for advertising if your ad is actually clicked on. It's essentially a method of 'buying' visits to your site, in addition to driving website visits organically.
- One of the most popular forms of PPC is search engine advertising, which allows advertisers to pay for ad placement in a search engine's sponsored links.
- This works when someone searches for a keyword related to their business offering.
- For example, if we bid on the keyword 'Google Shopping Management' our ad might show up at the top of the Google results page.

### Working of PPC

#### 1. **Keyword Selection:**

Advertisers choose specific keywords or phrases that they believe their target audience will use when searching for products or services.

#### 2. **Ad Creation:**

Advertisers create ads that are displayed on search engine results pages (SERPs) or other online platforms. These ads typically include a headline, a description, and a link to the advertiser's website.

#### 3. **Bid Auction:**

Advertisers participate in an auction where they bid on the amount they are willing to pay for a click on their ad. The bid, combined with other factors like ad relevance and quality, determines the ad's position on the SERP.

**4. Ad Placement:**

When someone searches for a keyword, the search engine runs an auction to determine which ads to display. The winning ads appear on the search results page.

**5. Payment:**

Advertisers only pay when someone clicks on their ad. Hence the term "Pay-Per-Click."

**Advantages of PPC Marketing****1. Immediate Results:**

PPC campaigns can be set up quickly, and ads can start appearing on search engine results pages (SERPs) or other online platforms almost immediately. This makes PPC an ideal choice for businesses looking for quick results or promoting time-sensitive offers.

**2. Targeted Advertising:**

Advertisers have precise control over who sees their ads. They can target specific keywords, geographic locations, languages, demographics, and even device types. This precision helps ensure that ads are shown to a highly relevant audience.

**3. Measurable ROI:**

PPC platforms provide detailed analytics and reporting tools, allowing advertisers to track the performance of their campaigns in real-time. Metrics such as clicks, impressions, conversions, and costs are readily available, making it easy to measure the return on investment (ROI) and adjust strategies accordingly.

**4. Budget Control:**

Advertisers have full control over their advertising budget. They can set daily or monthly spending limits, and once the budget is reached, the ads will stop appearing. This allows businesses to manage their costs effectively and avoid unexpected expenses.

**5. Flexibility and Customization:**

PPC campaigns are highly customizable. Advertisers can create multiple ad variations, test different messaging, and adjust targeting parameters to optimize performance. This flexibility enables continuous improvement and adaptation to changing market conditions.

**6. Brand Visibility:**

Even if users don't click on the ads, the exposure can contribute to brand awareness. Regular appearances on SERPs and other online platforms help reinforce brand recognition and trust among potential customers.

**7. Adaptability to Market Changes:**

PPC allows quick adjustments to marketing strategies based on changes in market trends, seasonality, or business goals. Advertisers can modify keywords, ad copy, and targeting parameters to stay relevant and competitive.

**8. Competitive Advantage:**

In highly competitive industries, PPC can provide a competitive edge. With strategic bidding, keyword targeting, and ad quality improvements, businesses can outperform competitors and capture a larger share of the market.

**9. Local and Global Reach:**

Advertisers can target specific geographic locations or reach a global audience, depending on their business objectives. This flexibility is especially valuable for businesses with diverse target markets.

**10. Enhanced Ad Extensions:**

PPC platforms often offer ad extensions, which allow advertisers to provide additional information such as site links, phone numbers, and location details. These extensions enhance the visibility and appeal of ads, providing more value to potential customers.



## Conversion Rate Optimization (CRO)

- Conversion Rate Optimization (CRO) is the process of improving the percentage of website visitors who take a desired action, often referred to as a "conversion."
- A conversion can be any action that aligns with a business's goals, such as making a purchase, filling out a form, signing up for a newsletter, or downloading a resource.
- The primary objective of Conversion Rate Optimization is to increase the effectiveness of a website or landing page in turning visitors into customers or leads.
- Instead of solely focusing on increasing traffic, CRO emphasizes optimizing the existing traffic by improving the user experience and persuasiveness of the content and design.

### Key components of Conversion Rate Optimization

#### 1. Analysis and Research:

Understanding user behavior is crucial. This involves analyzing website analytics, user feedback, and conducting usability studies to identify areas that can be optimized.

#### 2. Conversion Funnel Examination:

Examining the different stages of the conversion funnel helps identify where visitors may be dropping off or encountering obstacles. This includes the journey from landing on a page to completing the desired action.

#### 3. A/B Testing:

A/B testing (or split testing) involves creating variations of web pages or elements and testing them against each other to determine which performs better in terms of conversions. Elements that can be tested include headlines, images, call-to-action buttons, and overall page layout.

#### 4. User Experience (UX) Optimization:

Improving the overall user experience is essential. This includes making navigation intuitive, ensuring fast page loading times, and creating a visually appealing design that aligns with the brand.

**5. Mobile Optimization:**

With the increasing use of mobile devices, optimizing the website for mobile users is critical. CRO involves making sure that the website is responsive and provides a seamless experience across different devices.

**6. Performance Tracking:**

Ongoing monitoring and tracking of key performance indicators (KPIs) help assess the effectiveness of optimization efforts. This includes tracking conversion rates, click-through rates, bounce rates, and other relevant metrics.

## **Web Analytics**

- Web analytics involves collecting, measuring, and analyzing website data.
- Web Analytics tools can provide lots of useful information about the origin of website traffic, how website users navigate and interact throughout a website, what content and web pages they're most engaged with, and how they exit the site.
- Marketers can then use this data to optimize the performance of their channels and websites by taking data-led decisions.
- These are actions we take to improve performance based on our understanding of the data we've recorded; in other words, the data is leading the decision.
- While it's best practice to follow data-led decisions, we must always remind ourselves to make sure we test and verify the data.

**Web analytics tools**

Web analytics tools provide information about the origin of website traffic, how users navigate and interact throughout a website, what content and webpages they're most engaged with, and if they take valuable actions on the site, known as conversions, these include purchases or contact requests. Using this data, marketers can optimize channel and website performance with data-led decisions.

A number of analytics tools are available on the market today. Some of them are free, and some of them require a paid subscription. Paid analytics products and free analytics products will differ in terms of support, features, and functionality.

Some examples of available analytics packages include:

- Google Analytics and Google Analytics 360, which are part of the Google Marketing Platform
- Adobe Analytics
- Woopra
- Kissmetrics
- Webtrends
- Piwik

### **Advantages of web analytics**

- Insight into who the customers are and their interests
- Conversion challenges
- Enhanced appreciation of what consumers like or don't like
- Understanding of how to improve user experience for the consumer

## Social Media Marketing Platforms

Social Media Marketing includes various social media platforms to reach new customers, promote their business, create brand awareness, and increase sales.

Some most common social media platforms that we frequently used in social media marketing are given below -

### 1. Facebook



Facebook is the best social media marketing platform, which is founded by **Mark Zuckerberg** on February 4, 2004. It allows us to invite and connect with our friends, relatives, colleagues, and customers by sending them messages, images, audios, and videos. It also allows us to like and comment on the posts, which are shared by them.

- Facebook helps us to easily reach the targeted audience.
- It allows us to share budget-friendly ads to the audience.
- Using Facebook, we can learn and use a new market strategy at a low cost.
- It provides various marketing platforms.
- It allows organizations to communicate with clients.

## 2. Pinterest



Pinterest is a combination of the two words "Pin" (Thumbtack) and "Interest" (Interesting). It is quite different from all other social media marketing platforms. It is an image-pinning website introduced in 2009.

- Pinterest is the fastest-growing platform for online content distribution.
- It is mostly used to create brand awareness and increase website leads.
- Its user-friendly platform allows us to create a visual profile for business and publish news.
- Its visual-heavy social network helps us to build more traffic on our website at a low cost.

## 3. Twitter



Twitter is one of the most effective, popular, and fast-paced social media marketing platform created by **Jack Dorsey, Noah Glass, Biz Stone, Evan Williams**, and launched in **July 2006**. It is an **SMS-based communication** platform, which allows registered users to read and write small messages called "**tweets**."

- It helps us to increase customer satisfaction.
- It allows us to continuously send information in the form of small messages called "tweets."
- It helps us to establish a stronger relationship with customers.
- It improves organic search engine ranking.
- It is a very efficient platform for gathering feedback from customers.

#### 4.Linkedin



LinkedIn is the best B2B (Business 2 Business) social media marketing platform, which was founded in 2002. It allows us to create profiles as a fresher or as a professional. It is a place that helps us to search for jobs, stay connected with professionals, recruit new employees, and discuss business ideas with experienced employees to promote our business. A company profile on LinkedIn not only helps us to generate the local leads but also helps us to draw global leads.

There are the following reasons which make LinkedIn as a very effective platform for social media marketing -

- It provides an opportunity to stay updated about new technologies.

- It helps us to display and update our resume to search for new job opportunities.
- It is a free platform that mainly focused on career development.
- It helps to build and promote business brands.
- It is used to generate more leads.

## 6.YouTube



YouTube is an excellent **free video-sharing platform** for social media marketing. It was created in **2005**. YouTube helps us to create and upload our videos on the valuable content and deliver it to the audience in the form of tutorials.

- YouTube is the 2<sup>nd</sup> largest search engine and the 3<sup>rd</sup> most visited website.
- It is the best and easiest way to learn new technologies.
- It helps us to promote and sell our products worldwide.
- It is completely free to use and helps to acquire qualified traffic.
- It will expose you to connect with a huge audience.

## 7.Google AdWords

- Google AdWords is a marketplace where companies pay to have their website ranked right with the top organic search results, based on keywords.
- The basic gist is, you select to promote your brand based on keywords. A **keyword** is a word or phrase the user searches for, who then sees your ad. Your ads will only show up for the keywords you pick.

- Google counts the clicks on your ads and charges you for each click. They also count impressions, which is simply the number that tells you how often your ad has already been shown when the users searched for that keyword.
- If you divide clicks by impressions, you get the **click-through-rate** or CTR. This is the percentage of users who land on your advertised page, because they clicked on your ad.

## Create a Google AdWords Account

To create a Google AdWords account, visit – [www.adwords.google.com/](http://www.adwords.google.com/). From there you'll create your account, and set up your first campaign. Here are the steps –

### Step 1

Select your campaign type and name.

### Step 2

Choose the geographic location where you'd like ads to show.

### Step 3

Choose your "bid strategy," and set your daily budget.

### Step 4

Create your first ad group, and write your first ad.

### Step 5

Insert your keywords into the keyword field in your account.

### Step 6

Set your maximum cost-per-click.

### Step 7

Enter your billing information



## Google Analytics

- Google Analytics is a powerful web analytics service offered by Google that provides detailed statistics and analytical tools for website and app owners.
- It allows users to track and analyze various aspects of website or app performance, user behavior, and audience engagement.
- Google Analytics is widely used by businesses, marketers, and website administrators to gain insights into how users interact with their online content.

### Key features and capabilities of Google Analytics

#### 1. Visitor Tracking:

Google Analytics tracks the number of visitors to a website or app, along with information about their geographic location, device type, browser, and other demographic details.

#### 2. Page views and Session Metrics:

It provides data on the number of pages viewed by visitors, the average time spent on the site, and the number of sessions (periods of time a user is actively engaged with the website).

#### 3. E-commerce Tracking:

For online businesses, Google Analytics can track e-commerce transactions, providing insights into sales performance, revenue, and product popularity.

#### 4. Event Tracking:

It allows users to track specific interactions or events on a website, such as clicks on buttons, video views, or downloads.

#### 5. Site Speed Analysis:

Google Analytics provides information on the loading times of website pages, helping businesses identify and address performance issues that could impact user experience.

#### 6. Integration with Google Ads:

Google Analytics seamlessly integrates with Google Ads, providing insights into the performance of ad campaigns, keywords, and ad groups.

## Issues and Future enhancement of Digital Marketing

Digital marketing is an ever-evolving field, and while it has seen significant advancements, there are also challenges and opportunities for future enhancements.

### **Issues:**

#### **1.Privacy Concerns:**

**Challenge:** Increasing concerns about data privacy and user tracking have led to more stringent regulations (e.g., GDPR, CCPA).

**Impact:** Advertisers face limitations in collecting and utilizing user data for personalized targeting.

#### **2.Ad Fraud:**

**Challenge:** The rise of ad fraud, including click fraud and impression fraud, can lead to wasted ad spend.

**Impact:** Advertisers may see inflated metrics and struggle to ensure the authenticity of their campaign results.

#### **3.Information Overload:**

**Challenge:** Consumers are inundated with digital content and advertisements daily.

**Impact:** It becomes challenging for marketers to cut through the noise and capture audience attention effectively.

#### **4.Ad Blockers:**

**Challenge:** The widespread use of ad blockers limits the visibility of display ads.

**Impact:** Marketers struggle to reach their target audience through traditional display advertising.

## **Future Enhancements:**

### **1.AI and Machine Learning Integration:**

**Opportunity:** Leveraging AI and machine learning for better data analysis, personalized targeting, and automated decision-making.

**Impact:** Improved efficiency, more accurate targeting, and better insights into consumer behavior.

### **2.Augmented Reality (AR) and Virtual Reality (VR):**

**Opportunity:** Integrating AR and VR technologies for immersive and interactive advertising experiences.

**Impact:** Enhanced user engagement and the ability to showcase products/services in innovative ways.

### **3.Voice Search Optimization:**

**Opportunity:** Optimizing digital marketing strategies for voice search as the use of smart speakers and virtual assistants continues to rise.

**Impact:** Improved visibility in voice search results and a better user experience.

### **4.Blockchain Technology:**

**Opportunity:** Implementing blockchain for transparent and secure transactions, reducing ad fraud.

**Impact:** Increased trust, reduced fraud, and improved accountability in the digital advertising ecosystem.

### **5.Interactive Content:**

**Opportunity:** Creating more interactive and engaging content, such as quizzes, polls, and shoppable posts.

**Impact:** Increased user interaction, longer time spent on content, and improved conversion rates.

#### **6.Cross-Channel Integration:**

Opportunity: Seamless integration of marketing efforts across multiple channels for a cohesive and consistent customer experience.

Impact: Improved brand visibility, better customer retention, and a more comprehensive understanding of the customer journey

**\*\*\*\*\*END OF MODULE 4\*\*\*\*\***